Docket:	:	A.09-12-020
Exhibit Number	:	DRA-7
Commissioner	:	Peevey
ALJ	:	Fukutome
Witness	:	Phan

DIVISION OF RATEPAYER ADVOCATES
CALIFORNIA PUBLIC UTILITIES COMMISSION

Report on the Results of Operations for Pacific Gas and Electric Company General Rate Case Test Year 2011

Replacement Pages

Gas Distribution
Operation and Maintenance Expenses
(plus Technical Training and Applied Technology Services)

San Francisco, California
July 13, 2010

Revisions to Exhibit DRA-7:

1. p. 2, line 11. Delete $90.2 and replace with $93.2.
2. p. 3, Table 7-1. Replace Table 7-1 with Table 7-1 Revised. See attached.
3. p. 8, line 11, strike $10.8 and replace with $11.4.
4. p. 8, lines 1, 2, and 7. Replace the word "FERC" with "PHMSA"
5. p. 9, Table 7-2. Replace the $4,220 in collumn " DRA's 2011 Forecast" with $5,700. And replace the MWC DE total of $14,708 with $16,180.

6. p. 19, delete lines 15-26.
7. p. 20, delete lines 1-9.
8. p. 20, insert "DRA accepts PG&E's forecast of 8,595 as the incremental DIMP leak survey miles for a three-year survey cycle."
9. p. 20, line 19. Strike $2.8 million and replace with $4.3 million.
10. p. 20, line 21. Strike $4,220,000, and replace with $5.7 million.
11. p. 20, line 23. Strike $2,403,000, and replace with $900,000.
12. p. 57, Table 7-11. Column "DRA's 2011 Forecast". Delete $2,196 and replace with $3,400. Delete $17,121 and replace with $18,325.
13. p. 63, delete lines 14-17. Insert, "DRA accepts PG&E's forecast of 8,595 as the incremental DIMP leak survey miles for a three-year survey cycle."
14. p. 63,Table 7-12. Column "DRA's 2011 Forecast". Delete $696 and replace with $1,081. Delete $1,500 and replace with $2,319. Delete $2,196 and replace with $3,400.
15. p. 65, line 15, strike $527,000 and replace with $636,000.
16. p. 65, line 1. Add "and PG&E's DIMP leak survey miles," after "Using PG&E's calculations, ". Also, delete "additional miles" and replace with "leak rate of 0.31"
17. p. 65, line 2. Delete 247 and replace with 384.
18. p. 65, line 4. Delete 988 and replace with 1,535.
19. p. 65, line 6. Delete $695,552 and replace with $1.1 million.
20. p. 65, line 7. Delete $3.4 and replace with $3.
21. p. 65, line 9. Delete $1.5 and replace with $2.3.
22. p. 65, line 10. Delete $7.1 and replace with $6.3.
23. p. 65, footnote 165. Delete 247 and replace with 384. Delete 5,532, and replace with 8,595.
24. p. 65, footnote 166. Delete 988 and replace with 1535. Delete 5,532, and replace with 8,595.
25. p. 67, line 1, strike 2004 and replace with 2005.
26. p. 67, line 2, strike 2005, and replace with 2006.
27. p. 69, line 5, remove $526,664 and replace with $636,000

Activities and costs for O&M, Technical Training, and Applied Technology Services are grouped with similar types of work into a Major Work Category (MWC). PG&E's forecasts for MWC expenses are expressed in SAP nominal dollars. SAP dollars include certain labor-driven adders such as employee benefits and payroll taxes that are charged to separate Federal Energy Regulatory Commission (FERC) accounts. DRA's recommendations are made by MWC and SAP nominal dollars which are then translated into the appropriate FERC accounts through the Results of Operations (RO) model.

II. SUMMARY OF RECOMMENDATIONS

The following summarizes DRA's recommendations for TY2011:

- DRA recommends $93.2 million for 2011 compared to PG&E's request of $155 million for Gas Distribution O&M expenses, as presented in PG&E-3, Chapter 18;
- DRA recommends $527,000 for 2011 compared to PG&E's request of $5.2 million for the Gas Meter Protection Program, as presented in PG&E-3, Chapter 19;
- DRA recommends $500,000 for 2011 instead of $19.1 million that PG&E requests for Technical Training, as presented in PG&E-3, Chapter 20; and
- DRA recommends $835,000 for 2011 instead of $1.8 million that PG&E requests for Applied Technology, as identified in PG&E-3, Chapter 23.

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Table 7-1 compares DRA's and PG&E's TY2011 forecasts of Gas Distribution O&M, Technical Training, and Applied Technology expenses:

Table 7-1
Gas Distribution O&M, Technical Training, and Applied Technology Expenses for TY2011
(In Thousands of Dollars)

Description (a)	DRA Recommended (b)	PG&E Proposed[1] (c)	Amount PG&E>DRA (d=c-b)	Percentage PG&E>DRA (e=d/b)
PG&E-3, Chapter 18				
MWC DE, Leak Survey	$16,180	$22,100	$5,920	37%
MWC DF, Mark & Locate	$28,222	$29,902	$1,680	6%
MWC DG, Cathodic Protection	$8,802	$15,357	$6,555	74%
MWC FH-Preventive Maint.	$16,700	$33,800	$17,100	102%
MWC FI-Correct. Maint.	$18,325	$48,500	$30,175	165%
MWC FG-Opr. Gas Sys	$3,900	$3,900	$0	0%
MWC GG-Gas Engineering	$300	$300	$0	0%
MWC GZ-Gas Dist. Res.	$750	$1,500	$750	100%
GAS DIST O&M SUBTOTAL	$93,179	$155,062	$61,883	66%
PG&E-3, Chapter 19				
MWC EX-Meter Protection	$527	$5,200	$4,673	887%
PG&E-3, Chapter 20				
MWC AB, Tech Training	$500	$19,100	$18,600	3720%
PG&E-3, Chapter 23				
MWC AB, Applied Tech	$835	$1,800	$965	116%
TOTAL	$95,041	**$181,162**	$86,121	91%

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III. PG&E's OVERALL REQUEST

PG&E's base year 2008 recorded O&M expenses are $139 million.[2] For 2011, PG&E forecasts $181.7 million.[3] This is an increase of $42.7 million (nominal year dollar) above the base year. The increase reflects costs associated with PG&E's implementation of a federally mandated Distribution Integrity Management

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[1] Ex. PG&E-3, Chapter 18, WP 18-16.

[2] Ex. PG&E-3, p.1-11. All dollar amounts discussed in this testimony are in nominal SAP dollars, unless otherwise noted.

[3] Ex. PG&E-3, p. 1-46.

Additionally, PG&E's DIMP forecast is significantly higher than what PHMSA estimates would cost the entire nation to implement DIMP. According to PHMSA, the final regulation promulgating DIMP estimates that the national costs of implementing DIMP would be $130 million in the first year, and $101 million each year for subsequent years.[14]

PG&E forecasts $36.5 million in DIMP costs for 2011,[15] but as the Company serves 1 in 20 of the U.S. population,[16] based on PHMSA estimates, DIMP should only cost PG&E $6.5 million a year.

PG&E has not provided any reasons as to why its DIMP estimates cost more than 5 times the national estimate. DRA recommends that the Commission adopt a forecast of $11.4million to implement DIMP in the first year, which is still well above the FERC estimate.

DRA's analysis of PG&E's individual requests for DIMP along with DRA's presentation of alternative DIMP work levels and costs will be discussed below.

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A. MWC DE – Leak Survey

PG&E requests $22.1 million for 2011 for work activities associated with routine leak survey, special leak survey and DIMP leak survey. Of this total, $12.2 million is for routine leak survey, $3.3 million is for special leak survey, and $6.6 million is for DIMP leak survey. DRA recommends $14.7 million as the total forecast for MWC DE. See Table 7-2 for a comparison of PG&E's and DRA's 2011 forecast. DRA's analysis and recommendations are discussed below.

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[14] 74 Fed. Reg. 63932 (Dec. 2009)

[15] Exhibit PG&E-3, p. 17-9.

[16] Exhibit PG&E-1, p. 1-3.

Table 7-2
MWC DE—Leak Survey
PG&E's and DRA's 2011 Forecast
(In Thousands of Nominal Dollars)

	PG&E's 2011 Forecast	DRA's 2011 Forecast
Routine Leak Survey	$12,230	$8,988
Special Leak Survey	$3,252	$1,500
DIMP Leak Survey	$6,623	$5,700
MWC DE TOTAL	$22,105	$16,180

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PG&E conducts routine leak surveys on its distribution systems to find leaks. Routine leak surveys are performed on distribution facilities located in business districts as well as outside of business districts. Distribution facilities located in business districts must be surveyed annually while those outside of business districts must be surveyed at least once every five years.[17]

Special leak surveys are performed outside of the routine leak survey schedule. An example of a special leak survey occurs when a customer complains of gas leakage or if PG&E has to survey before, during, and after major third-party construction projects.[18] PG&E also counts leak rechecks of previously identified leaks as a special leak survey.

As for DIMP leak surveys, PG&E states that, "Leak surveys are the foundation of a DIMP. These surveys are systematic searches for gas leaks in buried piping and above ground meter sets."[19] These leak surveys are part of PG&E's effort to "identify and implement measures to address risks" as required by the new regulatory requirements. Specifically, PG&E requests additional DIMP

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[17] Ex. PG&E-3, Chapter 18, p. 18-6.

[18] Ibid.

[19] Ex.PG&E-3, Chapter 17, p. 17-17.

PG&E forecasts a total of $6.6 million for these work activities under DIMP. Of the $6.6 million, the shorter schedule is estimated to cost $5.153 million. The remaining $1.4 million is for the Grade 3 leak rechecks and copper leak surveys.

DRA takes issue with PG&E's cost estimate to transition to the 3-year cycle. Specifically, DRA disputes PG&E's forecast of the number of additional miles the Company needs to survey to transition to the 3-year leak survey schedule. DRA also disputes the unit cost forecast for these additional miles because PG&E has not presented adequate support. DRA does not dispute the $1.3 million for the Grade 3 leak rechecks and copper leak surveys.

PG&E forecasts that it will need to perform an additional 8,595 miles in 2011, in order to transition to the 3-year leak survey cycle.[43] PG&E calculated this number by subtracting the number of miles that the Company forecasts it will survey annually on the 5-year schedule from the number that it has to survey on a 3-year schedule (28,992 miles-20,398 miles =8,595 miles).[44]

~~PG&E's forecast is flawed. PG&E's forecast of 8,595 additional miles comes from a calculation that includes miles already scheduled on annual and existing 3-year leak survey schedules, and that are not affected by the move from a 5-year leak survey schedule to a 3-year leak survey schedule. According to PG&E, DIMP leak surveys are incremental miles needed to move from a five year to a three year interval.[45] Leak surveys that are currently on an annual and existing 3-year leak survey schedules are already accounted for under the normal expenses for routine leak surveys. By including the number of miles already surveyed under the annual and the 3-year leak survey schedules, PG&E artificially inflates the number of additional miles necessary to transition.~~

~~PG&E also included 1.3 percent annual system growth for 2009-2011 in its estimate of the number of miles the Company needs to survey in 2011. As~~

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[43] Ex. PG&E-3, Chapter 18, p. 17-18.

[44] Ex. PG&E-3, Chapter 18, p. 17-18.

[45] Ex. PG&E-3, Chapter 17, pp. 17-18 through 17-19.

DRA accepts PGE's forecast of 8,595 as the incremental DIMP leak survey miles for a three-year survey cycle.

~~discussed above, PG&E's claim that system growth impacts the level of miles surveyed has not been adequately supported. DRA recommends using the actual number of miles surveyed in 2009, which is also the number that DRA forecasts as the number of miles to be surveyed under routine leak surveys for 2011, to calculate the DIMP leak survey difference. Instead of the difference being 8,595 as PG&E claims, DRA's calculations yields 5,532 additional miles. DRA's number is calculated by changing the number of miles that are currently on the 5-year cycle to the 3-year cycle and taking the difference between this number and the annual number DRA forecasts for routine leak survey above.~~[46]

Also, DRA takes issue with PG&E's unit cost for the DIMP surveys. The unit cost of $599.57 per mile that PG&E forecasts for 2011 is unsupported. PG&E uses the same reasons as the routine leak surveys to justify the unit cost for the DIMP surveys.

DRA recommends using the PG&E 2010 unit cost forecast of $497.26 per mile for the 5,532 additional miles for the same reasons discussed above—mainly because the PG&E 2010 unit cost is reasonable and it incorporates the 'steady-state' performance that the leak surveyors will have achieved after having surveyed for leaks using the new techniques and processes for several years.

DRA's 2011 recommendation for the shorter schedule is ~~$2.8~~ $4.3 million compared to PG&E's forecast of $5.2 million. For the total DIMP leak surveys, DRA's recommendation is ~~$4,220,000~~ $5.7 million, which includes the $1.4 million for the Grade 3 leak rechecks and copper leak surveys that DRA does not dispute. This is a difference of ~~$2,403,000~~ $900,000 compared to PG&E's forecast of $6,623,000.

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[46] DRA's calculation is as follows: PG&E shows the total number of 5-year miles as 70,823 (PG&E-3, p.17-18). DRA divided this number by 3 to get 23,608 miles each year. This is the number that PG&E will need to survey annually to transition to the 3-year cycle. Currently, PG&E is on the 5-year cycle for routine leak survey and accordingly, DRA's forecast is 18,076 miles for 2011. The number of additional miles that PG&E will need to transition to the 3-year leak survey is the difference between the current work schedule and the accelerated one: 23,608-18,076=5,532 miles.

Table 7-11
MWC FI—Corrective Maintenance
PG&E's and DRA's 2011 Forecast
(In Thousands of Nominal Dollars)

	PG&E's 2011 Forecast	DRA's 2011 Forecast
Main Leak Repair	$9,763	$3,200
Service Leak Repair	$20,343	$6,800
Main Dig-In Repair	$255	($62)
Service Dig-in Repair	$806	$338
Cathodic Protection Restoration	$2,796	$2,796
Regulator Station Repair	$1,163	$1,163
Valve Repair	$690	$690
DIMP Corrective Maint.	$12,681	$3,400
MWC FI TOTAL	**$48,496**	$18,325

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1. Main Leak Repair

PG&E forecasts $9.8 million to perform 2,253 main leak repairs at a unit cost of $4,333.13 per repair. According to PG&E, non dig-in leak repairs on main are done based on discoveries by leak surveys, by employees during other maintenance, or from calls by the public.[149]

PG&E's 2011 forecast is based on an estimate of .55 leaks per mile.[150] Also, PG&E claims that the increase is due to the number of Grade 2 leaks (non-

(continued from previous page)
[148] Ex. PG&E-3, WP p. 18-16.

[149] Ex. PG&E-3, p. 18-30.

[150] Ex. PG&E-3, WP p. 18-32.

service leak repair for DIMP Corrective Maintenance are the same as the main and service leak repairs discussed above, and tracked by MWC FI. DRA takes issue with PG&E's 2011 forecast and recommends $2.2 million instead. A comparison of PG&E's and DRA's 2011 forecast for DIMP corrective maintenance is presented in Table 7-12 below.

Table 7-12

MWC FI—DIMP Corrective Maintenance

(In Thousands of Nominal Dollars)

	PG&E's 2011 Forecast	DRA's 2011 Forecast
Main Leak Repairs	$4,108	$1,081
Service Leak Repairs	$8,573	$2,319
DIMP Corr. Maint. TOTAL	**$12,681**	**$3,400**

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PG&E's forecast for DIMP Corrective Maintenance is based on the difference in the number of miles surveyed for leaks based on the transition from a 5-year leak survey cycle to a 3-year accelerated leak survey cycle. PG&E's forecast is based on the calculation that PG&E will be performing leak surveys on an additional 8,595 miles of mains and services.

~~DRA takes issue with the 8,595 miles of additional mains and services, as discussed in the forecast for MWC DE above. DRA's recommendation is for 5,532 additional miles. Please see the discussion under DIMP Leak Surveys above for reasons and rationale.~~ DRA accepts PG&E's forecast of 8,595 miles as the incremental DIMP leak survey miles for a three-year survey cycle.

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DRA takes issue with PG&E's use of the 0.767 leaks per mile to estimate the 2011 main and leak repairs. PG&E is basing this leak rate on the January-June 2008 leak rate.[162] DRA is not confident that this leak rate will continue to occur. With the mains and services and valve repairs that PG&E has been performing with the day-to-day operations and all the work associated with the GEEM program, DRA

[162] Ex. PG&E-3, p. 17-23.

Using PG&E's calculations and PG&E's DIMP leak survey miles, except with DRA's number for the leak rate of 0.31, and the DRA unit cost for main repairs, DRA forecasts 384 main leak repairs,[165] with a unit cost of $2,816 per repair. Also, using PG&E's calculations and DRA's number of additional miles and unit cost for service leak repairs, DRA forecasts 1,535 service leak repairs,[166] with a unit cost of $1,511 per repair.

DRA's recommendation is for $1.1 million for main leak repairs compared to PG&E's forecast of $4.1 million. The difference is $3 million lower than PG&E's forecast.

As for service leak repair for DIMP corrective action, DRA recommends $2.3 million for 2011. DRA's forecast is $6.3 million lower than PG&E's forecast of $8.6 million.

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G. MWC EX – Gas Meter Protection Program

PG&E requests $5.2 million in 2011 for the Gas Meter Protection Program (MPP). Specifically, PG&E estimates that the Company will perform 4,569 bollard protections and 1,100 service valve installations.[167] DRA recommends $527,000 as the 2011 forecast for MWC EX. This amount is $4.7 million lower than PG&E's forecast.

PG&E states that the Gas MPP is a focused program that addresses gas meter locations that do not conform to current Company standards and federal pipeline safety regulations. The program focuses on two types of significantly non-

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[165] Main leak repairs= 384 (8,595 miles x 0.31 leaks per mile x 20 percent leaks on main x 72 percent leaks require repair)

[166] Service Leak Repairs = 1,535 (8,595 miles x 0.31 leaks per mile x 80 percent leaks on services x 72 percent leaks require repair)

[167] Ex. PG&E-3, p. 19-22.

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Commission authorized $2.5 million for the Gas MPP. However, in 2005, PG&E spent $1.9 million that year and in 2006, the Company spent only $1.6 million. PG&E states, "MPP actual expenditures were less than the amount from the rate cases 14 times since 1990."[174]

PG&E's forecast that it will perform 4,569 bollard protections and 1,100 service valve installations is unsupported. PG&E states that the unit forecast for 2011 was calculated based on the number of known locations that require protection by 2016, along with anticipated new locations as the company initiates an ongoing meter inspection program in 2010. PG&E forecasts 1,675 locations in 2009 and 1,402 locations in 2010. However, the Company forecasts 4,900 locations in 2011 in order to complete the program by 2016.[175] PG&E's estimate of service valve installations in 2011 is based on 6,100 locations that need to be completed to meet the 2016 deadline.[176]

DRA takes issue with PG&E's 2011 forecast for the MPP. DRA finds that PG&E has been continually and deliberately under-spending on this program, despite specific Commission directives not to do so. This represents deferred maintenance by PG&E and any need to make up for past under-spending should be done and fully funded by PG&E and not by ratepayers.

As for 2011, DRA finds that PG&E has not adequately substantiated the significant increase in units of work for bollard protections and valve installations. PG&E states, "the four-fold increase of the units forecasted for bollard protection and the increase from zero to 1,000 units of valve installations in 2011 was determined by forecasting the number of known locations that need to be completed by 2016 plus some additional meter locations that may be anticipated as the company

[174] PG&E's response to DRA-8, Q. 9.

[175] PG&E's response to DRA-8, Q. 12.

[176] Ibid.

Based on this Report, DRA concludes that PG&E is well on its way to completing the program by 2016. Recent spending for this Program also suggests that PG&E is able to meet its goal at a level of funding well below the authorized amount of $3.2 million each year. The average expenditure recorded for MWC EX for years 2007-2009 is $526,664. PG&E has not justified the requested amount of $5.2 million for 2011.

Based on inadequate support for the forecast and PG&E's continued under-spending for this MWC, DRA recommends the 2007-2009 average spending as the 2011 forecast. DRA's recommendation of $636,000 is $4.7 million lower than PG&E's forecast.

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H. MWC GG, Gas Engineering and Planning

PG&E forecasts $3 million in 2011 to model the gas distribution system to ensure a safe, reliable, and cost effective supply of natural gas to customers and to ensure that the system can accommodate future load growth. In 2008, the Company spent $3.1 million for these work activities. DRA does not take issue with PG&E's request.

I. MWC GZ, Gas Distribution Research

PG&E requests $1.5 million for gas distribution research, development, and demonstration work in targeted areas of gas distribution. DRA recommends $750,000 for MWC GZ. This amount is $750,000 lower than PG&E's request.

According to PG&E, the objectives of this program are to explore new opportunities, concepts, and technologies to continue to provide safe, reliable service to customers at a lower cost.[181] The 2011 forecast is three times higher than the 2008 recorded amount of $456,000. According to PG&E, the 2011 RD&D forecast reflects an appropriate support level for the overall O&M forecast in several major work categories (DE, DF, DG, FG, FH, and FI), so that new concepts and

[181] Ex. PG&E-3, p. 18-36.